

ABSTRACT PAPER

The object of the present invention is to propose
an etch channel sealing structure characterized by
5 excellent impermeability to moisture and resistance to
temporal change of the diaphragm in the pressure
sensor produced according to the sacrificial layer
etching technique, and to provide a pressure sensor
characterized by excellent productivity and durability.
10 After a very small gap is formed by the sacrificial
layer etching technique, silicon oxide film is
deposited by the CVD technique or the like, thereby
sealing the etch channel. Further, impermeable thin
film of polysilicon or the like is formed to cover the
15 oxide film.

This allows an etch channel sealing structure to
be simplified in the pressure sensor produced
according to the sacrificial layer etching technique,
and prevents entry of moisture into the cavity,
20 thereby improving moisture resistance. Moreover,
sealing material with small film stress reduces
temporal deformation of the diaphragm.